

CHAPTER 7: IMPLEMENTATION



A person wearing a red shirt and dark shorts is riding a bicycle away from the viewer on a paved path. The path is bordered by a green lawn and trees in the background. The image is partially covered by a large green diagonal overlay on the left side.

CHAPTER 7 IMPLEMENTATION

This chapter establishes an action plan for implementing the Patroon Creek Greenway, including phasing recommendations, cost estimates for each phase, and a summary of potential funding sources.

OVERVIEW

This chapter provides an action plan for the City of Albany to implement the Patroon Creek Greenway. It identifies several ongoing and related initiatives that directly relate to and provide momentum for implementing the future Greenway; it establishes a phasing plan with estimated costs for implementing the recommendations in the previous chapter; and, it provides an overview of potential funding sources.

Recent, Related Initiatives

Several initiatives that are directly related to the Patroon Creek Greenway and focus on improving access to the waterfront and inter-municipal connectivity received funding and heightened attention in the Spring of 2022, including:

- **I-787 Feasibility Study:** The State budget included \$5 million in funding for a feasibility study to better understand the impacts of modifying and/or removing all of or part of I-787. This roadway is a major barrier to the Hudson River waterfront and future improvements could significantly increase pedestrian access to the river and the future Patroon Creek Greenway.
- **Livingston Avenue Bridge Replacement:** The U.S. Department of Transportation's capital plan includes up to \$400 million to replace the existing Livingston Avenue bridge with a modernized structure including separated bicycle and pedestrian access. If this bridge is rebuilt with bicycle and pedestrian infrastructure, the Patroon Creek Greenway would have a direct link across the Hudson River and could interconnect into existing and proposed trails in Rensselaer County.

As these initiatives advance, the connection to the Patroon Creek Greenway should continue to be highlighted, including the Greenway's ability to provide a link between these major multi-modal improvements and the local community.

Environmental Review

In order to position the Patroon Creek Greenway for future federal and state funding, environmental reviews pursuant to the State Environmental Quality Review Act (SEQR) and the National Environmental Policy Act (NEPA) should be conducted on the full length of the proposed Greenway as an immediate next step. For the federal NEPA review, the Federal Highway Administration (FHWA) would likely serve as lead agency. For the state SEQR review, the City of Albany would likely serve as the lead agency. It is expected that the Greenway will not have a significant negative impact.

Many funding sources are looking for shovel-ready projects. By completing environmental reviews for the entire length of the Greenway in the near-term, the City of Albany will be better positioned to apply for grant funding and design and implementation of the Greenway will be able to proceed as soon as funds are secured.

Other Pre-Development Work

Because this report represents a planning-level feasibility study, several additional actions will need to be undertaken prior to initiating construction of the proposed Greenway trail. Pre-development work may include, but is not limited to:

- **Grant Writing:** This is a necessary next step in securing additional funding for design and construction of the Greenway. There are several state and federal funding sources that focus on improving equitable access to active transportation options, sustainably managing stormwater, and reducing greenhouse gas emissions to address climate change. The Patroon Creek Greenway is well-aligned with all of these priorities as it increases active transportation infrastructure, integrates green infrastructure, expands the urban tree canopy, and is located in federal and state environmental justice areas.
- **Community Engagement:** Continued dialogue and door-to-door outreach with impacted residents is critical as the design of trail facilities along the Greenway are advanced.
- **Parking Study:** A parking study focused on the impacts of removing on-street parking along Ten Broeck Street is recommended. Parking utilization within approximately one-quarter mile of Ten Broeck Street should be quantified for representative time periods throughout the day on weekends and weekdays. The results from this study will inform the design of the Patroon Creek Greenway along this section of the trail.



- **Construction Document Preparation:** Construction documents detailing how the Greenway will be constructed are a necessary next step. This action can be phased, per the recommendations in the next section.
- **Permitting:** Coordination with involved agencies should occur early in the design process and throughout construction document development to ensure permit requirements are fully integrated into final designs.
- **Easements / Right-of-Way Acquisition:** Several sections of the Greenway will require easements and/or right-of-way acquisition, particularly in the segments west of Everett Road. Partnerships between the City of Albany, Albany County, and the Mohawk Hudson Land Conservancy are recommended to provide ample capacity to negotiate and secure easements. The Capital District Trails Plan provides a sample easement for right-of-way.
- **Maintenance:** The long-term maintenance of the Greenway and the amenities along the Greenway should be considered as this project advances. Inter-municipal partnerships as well as partnerships with local community groups, institutions (e.g., schools), and land conservancies will be critical to maintaining the full length of the Greenway as well as cultivating a sense of local stewardship and ownership of the trail.



▲ Rendering of the proposed Patroon Creek Greenway along Ten Broeck Street in downtown Albany (long-term vision)

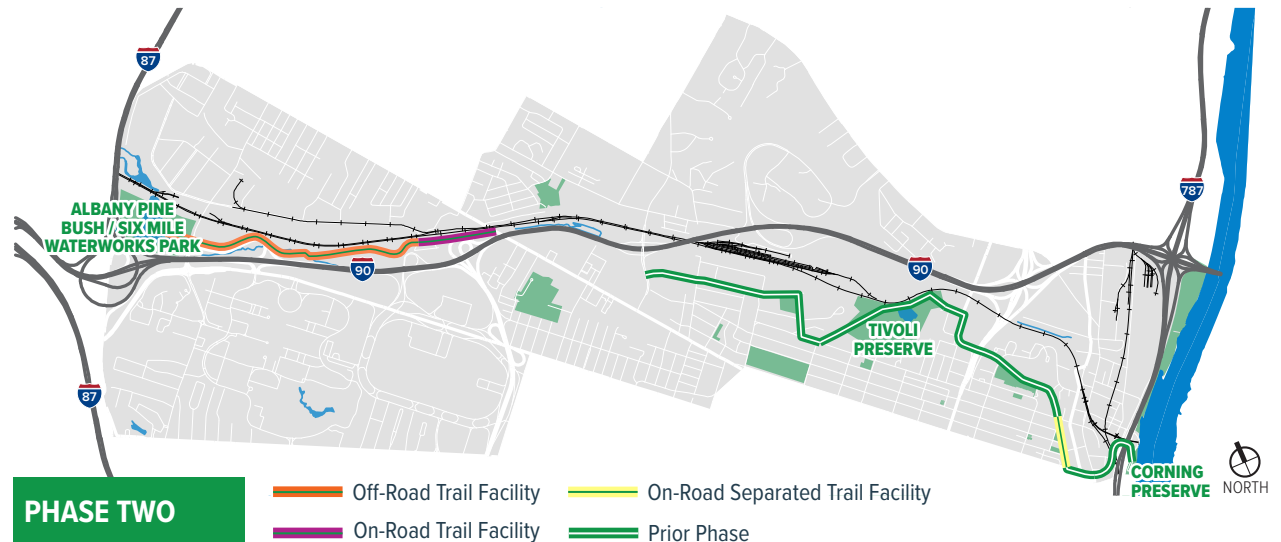
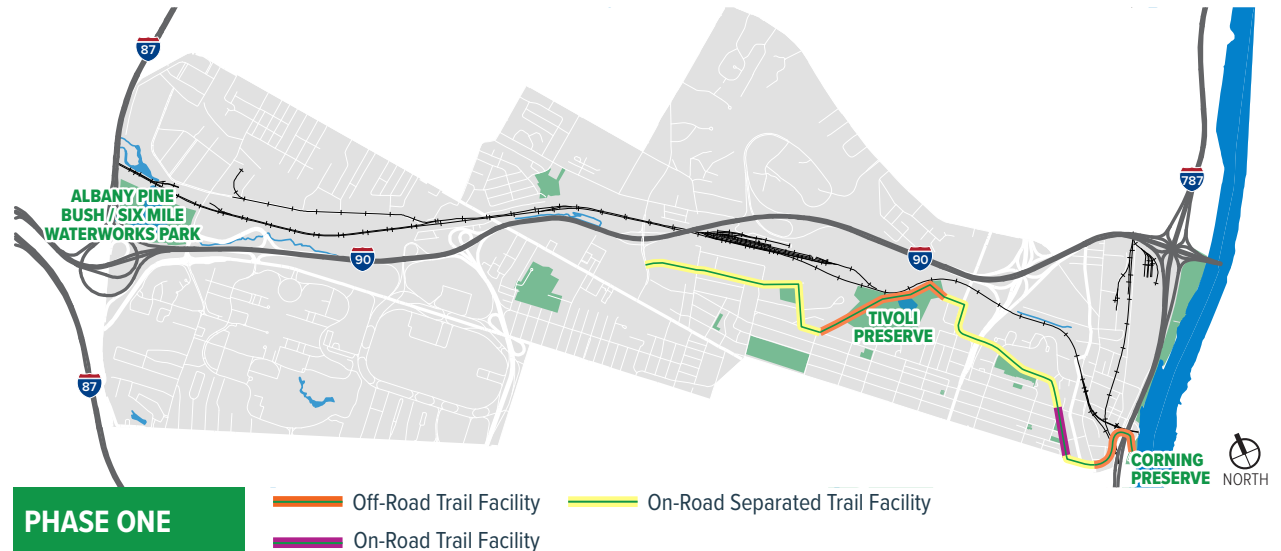
PHASING

This section outlines a phased approach to the design and construction of the Patroon Creek Greenway. Improvements in the eastern portion of the study area that directly benefit the local community, particularly historically under-served populations, are prioritized in the near-term and longer-term improvements focus on extending the Greenway west to Six Mile Waterworks Park.

Phase One

This phase includes the design and construction of Patroon Creek Greenway segments from Everett Road east to the riverfront. These improvements will provide immediate benefits to the local neighborhood by increasing connectivity and access to Tivoli Preserve, the Hudson River waterfront, and local community destinations (e.g., schools). From west to east, proposed improvements include:

- A new 12-foot wide shared-use path separated by a landscaped median providing stormwater management (where space allows) and connecting Everett Road to Tivoli Preserve via Watervliet Avenue Extension, Commerce Avenue, Terminal Street, and Livingston Avenue.
- A new permeable asphalt path in Tivoli Preserve following Patroon Creek and connecting the Preserve's entrance at Manning Boulevard N. to its entrance at Livingston Avenue via Albany Water Board property. All entrances to Tivoli Preserve should be designed to prevent any unauthorized motor vehicle access, and all portions of the Greenway through the Preserve must maintain clear maintenance access for the Albany County Water Board and the City of Albany Department of Water and Water Supply.





PATROON CREEK GREENWAY: PHASE ONE

TRAIL SEGMENT	ACTION	COST ESTIMATE	NOTES
Everett Road to Tivoli Preserve (IN-1)	Creation of a new 12-foot wide shared-use path separated by a landscaped median (where space allows) along Commerce Avenue and Terminal Street; removal of on-street parking to create a separated bike lane along Livingston Avenue (or retain parking and create a shared roadway)	\$7.5 million	Additional engagement with adjacent and impacted property owners is needed to further develop design
Tivoli Preserve	New permeable asphalt trail along the Patroon Creek, connecting the northeast entrance of Tivoli Preserve at Manning Boulevard N. to the southwest entrance at Livingston Avenue	\$2 million	Coordination with County Water Purification District and City of Albany Department of Water and Water Supply is needed to ensure access to their infrastructure
Tivoli Preserve to the Albany Skyway (NE-1)	Removal of one lane of parking to create a new 12-foot wide shared-use path separated by a landscaped median (where space allows) along Northern and Manning Boulevards; integration of stormwater management into the landscaped buffer; new shared use path on Clinton Avenue; retain bike lanes on Ten Broeck Street	\$6.5 million	Additional engagement with adjacent and impacted property owners is needed to further develop design, including a parking study in the Ten Broeck area
PHASE ONE COST ESTIMATE		\$16 MILLION	

PATROON CREEK GREENWAY: PHASE TWO

TRAIL SEGMENT	ACTION	COST ESTIMATE	NOTES
Six Mile Waterworks Park to Central Avenue (CA-1a)	New off-road trail between Fuller Road and Yardboro Avenue; new shared roadway along Yardboro with sidewalk improvements and green infrastructure	\$6 million	Requires easements and/or right-of-way acquisition from private property owners and coordination with the railroad, FHWA, National Grid, the Albany County Water Purification District, and property owners along Yardboro Avenue
Fuller Road Crossing Improvements	Option 1: Enhanced at-grade crossing Option 2: New pedestrian bridge	Option 1: \$150,000 Option 2: \$5.5 million	At-grade enhancements could be made immediately; the pedestrian bridge should be considered as funding becomes available
Ten Broeck Street Improvements	New two-way separated bike lane and landscaped buffer along western side of Ten Broeck Street	\$1.5 million	Design of this facility to be informed by a parking study
PHASE TWO COST ESTIMATE		\$7.6 - \$13 MILLION	

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PHASING (CONT.)

- A new 12-foot wide shared-use path separated by a landscaped median providing stormwater management (where space allows) along Northern and Manning Boulevards, connecting Tivoli Preserve to Livingston Avenue. This option requires the removal of one lane of on-street parking and additional engagement with residents and property owners is needed to refine the Greenway design and minimize any negative impacts to residents.
- Continued maintenance of the bike lanes on Ten Broeck Street.
- A parking study to assess the potential impacts of removing one of lane parking along Ten Broeck Street to provide space for a separated trail facility.
- A new multi-use path along Clinton Avenue, connecting trail users directly to the Albany Skyway.

The estimated cost to implement this first phase is approximately \$16 million.

Phase Two

This phase includes the design and construction of the Patroon Creek Greenway segments in the Campus character area to provide an off-road connection between Six Mile Waterworks Park and Central Avenue. This phase also includes upgrades to trail facilities in the Neighborhood character area. From west to east, proposed improvements include:

- An enhanced crossing at Fuller Road; depending on additional public engagement and available funding these enhancements could be at-grade or a new pedestrian bridge.
- A new, off-road 12-foot wide shared-use path in the woods between Fuller Road and Yardboro Avenue.
- A shared roadway with an upgraded sidewalk and green infrastructure along the length of Yardboro Avenue.
- Pending the results of a parking study, a new two-way separated bike lane along the western side of Ten Broeck Street to provide a continuous, separated trail from Tivoli Preserve to the Albany Skyway.

The estimated cost to implement this second phase is approximately \$13 million if a pedestrian bridge is constructed at Fuller Road or \$7.6 million if only at-grade crossing improvements are made at Fuller Road.



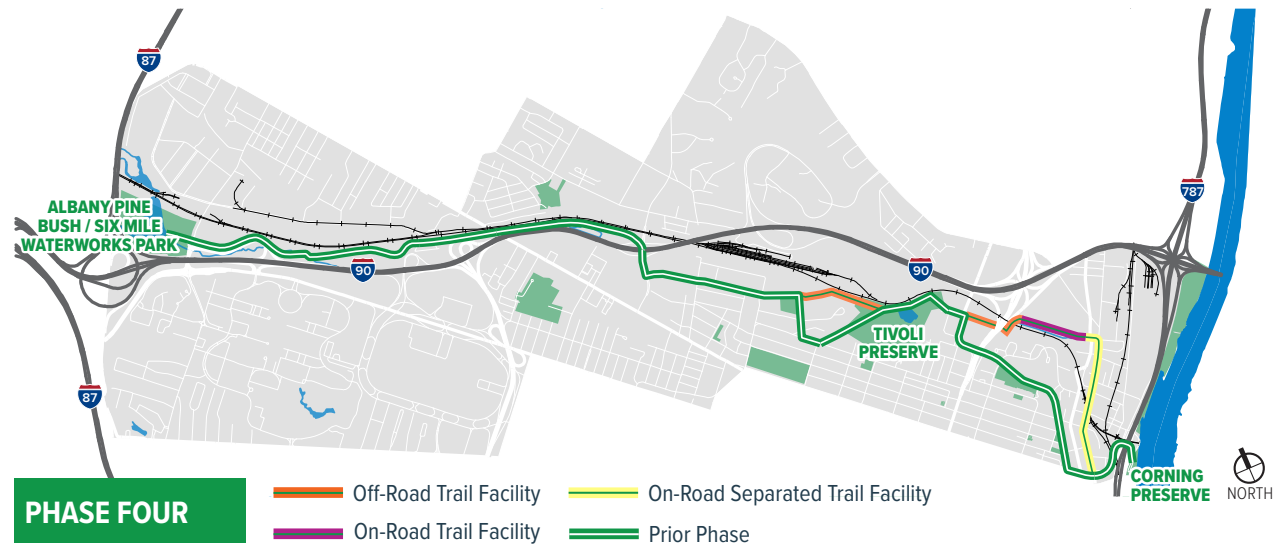
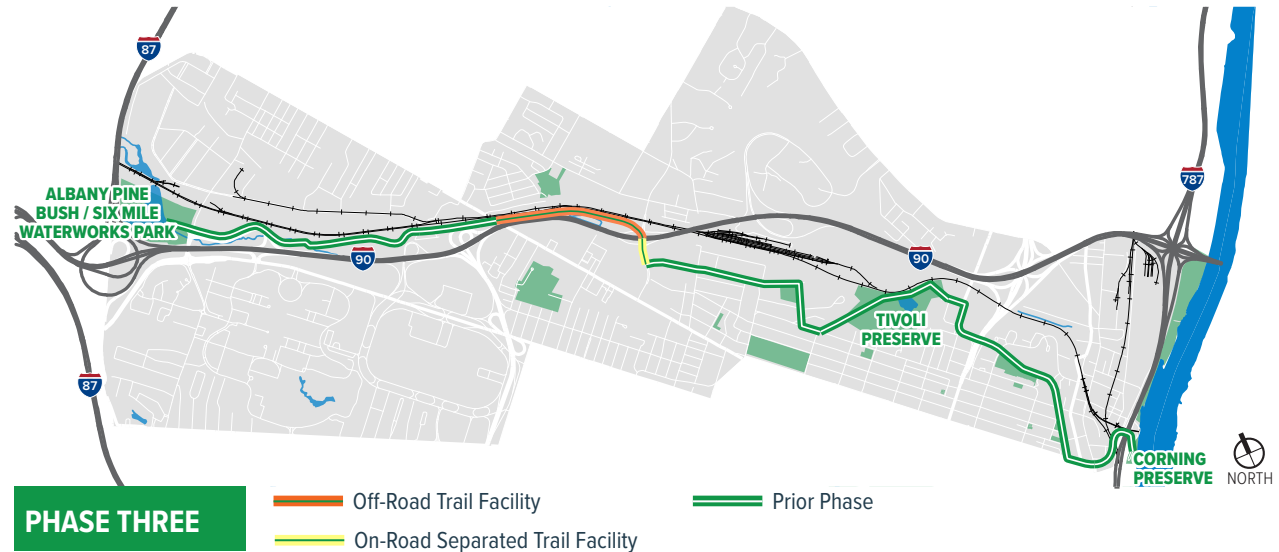
Geese crossing Northern Boulevard near Tivoli Preserve.

Phase Three

The implementation of this phase relies on the redesign and replacement of the Everett Road Bridge. Once the bridge is replaced with a separated shared-use path for cyclists and pedestrians, the off-road section of the Patroon Creek Greenway between Central Avenue and Everett Road can be constructed. From west to east, proposed improvements in this phase include:

- An enhanced crossing at Central Avenue; depending on additional public engagement, further study, and available funding these enhancements could be at-grade or a new pedestrian bridge. A new pedestrian bridge would also require a boardwalk as part of the western approach to the bridge to minimize disturbance to the Patroon Creek.
- A new, off-road 12-foot wide shared-use path following Patroon Creek between Central Avenue and Everett Road, including a new embankment and ramp at the east end of this segment to traverse the grade change between the trail and Everett Road Bridge.
- Restoration of the shoreline along Patroon Creek between Central Avenue and Everett Road.

The estimated cost to implement this third phase ranges from approximately \$4.5 million to \$19 million. The upper end of the cost estimate includes the construction of a new pedestrian bridge over Central Avenue and ecological restoration along Patroon Creek.



PHASING (CONT.)

Phase Four

This final phase includes the implementation of the long-term vision for the Greenway, which more closely follows the Patroon Creek for its entire length. Proposed improvements include:

- A new, off-road 12-foot wide shared-use path proceeding east from Commerce Avenue, wrapping around the Freihofer Bakery, and entering the western side of Tivoli Preserve.
- A new, off-road 12-foot wide shared-use path continuing east from Tivoli Preserve, passing under U.S. 9 and then crossing the railroad via a new pedestrian bridge to connect to Tivoli Street.
- A shared roadway with an upgraded sidewalk along the length of Tivoli Street.
- A new separated trail facility along Broadway south to the Albany Skyway.

The estimated cost to implement this fourth phase is approximately \$29 million.

Potential Funding Sources

Several state and federal funding sources are available to support the design, construction, and maintenance of trail and active transportation systems. The following pages summarize several of the existing funding sources that are aligned with the proposed Patroon Creek Greenway.



Public event at Washington Avenue Branch Library



PATROON CREEK GREENWAY: PHASE THREE

TRAIL SEGMENT	ACTION	COST ESTIMATE	NOTES
Central Avenue to Everett Road (CR-1b)	New off-road trail between Central Avenue and Everett Road; new embankment and ramp to traverse grade change between the trail and Everett Road Bridge; ecological restoration along the Patroon Creek	Trail + Restoration: \$10.5 million Trail Only: \$4 million	Requires easements and/or right-of-way acquisition from CSX and coordination with NYS DOT, FHWA, National Grid, and the Albany County Water Purification District
Central Avenue Crossing Improvements	Option 1: Signalized intersection Option 2: New pedestrian bridge (including boardwalk approach)	Option 1: \$550,000 Option 2: \$8.5 million	At-grade enhancements could be made immediately; the pedestrian bridge should be considered as funding becomes available
PHASE THREE COST ESTIMATE		\$4.5 - \$19 MILLION	

PATROON CREEK GREENWAY: PHASE FOUR

TRAIL SEGMENT	ACTION	COST ESTIMATE	NOTES
Commerce Avenue to Tivoli Preserve (IN-2)	New off-road trail between Commerce Avenue and Tivoli Preserve	\$4 million	Requires easements and/or right-of-way acquisition from private property owners and coordination with the railroad; terrain is very steep (slopes exceeding 30%)
Tivoli to the Albany Skyway (NE-3)	New off-road trail between Tivoli Preserve and Tivoli Street; new pedestrian bridge over the railroad; shared roadway on Tivoli Street; separated bicycle and pedestrian facilities along Broadway	\$25 million	Requires coordination with the railroad and property owners along Tivoli Street and Broadway
PHASE FOUR COST ESTIMATE		\$29 MILLION	

POTENTIAL FUNDING SOURCES

SUMMARY OF POTENTIAL FUNDING SOURCES				
PROGRAM	DESCRIPTION	FUNDED PROJECT TYPES	AGENCY	NOTES
Transportation Alternatives Program / Air Quality Improvement Program (TAP/ CMAQ)	Supports bicycle, pedestrian, multi-use path, and non-motorized transportation- related projects. Projects must be related to surface transportation.	Construction of pedestrian and bicycle facilities, recreational trails, and safe routes to schools, as well as community improvements, such as projects that reduce congestion and gas emissions.	This is a federally funded program, administered by the NYS DOT.	Application timing varies year to year. Up to 80% of total project costs eligible, with 20% local share.
Consolidated Local Street and Highway Improvement Program (CHIPS)	Funds support the construction and repair of highways, bridges, highway railroad crossings, and other facilities not in the State highway system.	Funds can be used for resurfacing, shoulder improvements, new drainage systems, sidewalk improvements, traffic calming installations, and bus shelters.	Funding is administered through the NYS DOT.	Appropriations are defined annually.
Recreation Trails Program (RTP)	Provides funds to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Funded projects must be identified in, or further a specific goal of, the Statewide Comprehensive Outdoor Recreation Plan.	Funds the maintenance and restoration of existing trails, the purchase and lease of trail construction equipment, acquisition of easements, construction of new trails and assessments.	An assistance program of the U.S. DOT's Federal Highway Administration (FHWA). The RTP is administered by the Office of Parks, Recreation and Historic Preservation (OPRHP).	Funding is through the states' CFA process. Specific guidelines provided in association with each grant cycle. This is the only federal funding source providing funds for trail maintenance.
Surface Transportation Block Grant program (STBG)	Provides flexible funding that may be used by states and localities to preserve and improve the conditions and performance on: any Federal-aid highway, bridge, and tunnel projects; any public road; pedestrian and bicycle infrastructure; and transit capital projects.	Funds can be used for transportation alternatives and recreational trail projects.	Funding is provided through the US Department of Transportation. Program is competitive at national level.	Available funding varies.



SUMMARY OF POTENTIAL FUNDING SOURCES (cont.)

PROGRAM	DESCRIPTION	FUNDED PROJECT TYPES	AGENCY	NOTES
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Discretionary Grants	Funding for a range of planning and capital transportation improvement projects, with an emphasis on equity and sustainability.	Funds can be used for capital transportation improvements, including: roads and bridges, public transportation, and intermodal projects. Pre-construction activities (e.g., design) are also eligible.	Funding is provided through the US Department of Transportation. The program is competitive at the national level.	Available funding varies. This year (2022), \$2.275 billion of funding is available and at least \$35 million in funding is guaranteed for projects in Areas of Persistent Poverty or Historically Disadvantaged Communities. The maximum grant award is \$25M and no more than \$100M could be awarded to a state.
Infrastructure Investment and Jobs Act / Bipartisan Infrastructure Law	This recent law allocates \$550 billion in funding between 2022 and 2026 to improve our nation's infrastructure, including roads, bridges, and mass transit	Project eligibility depends on the funding program	Funding is provided through federal agencies, including the Federal Highway Administration (FHWA)	Some of the released and anticipated discretionary funding programs related to this project include: <ul style="list-style-type: none"> • Carbon Reduction Program • Safe Streets for All program • Reconnecting Communities • Health Streets Program
Environmental Protection Fund (EPF)	Funding for a range of planning and capital projects that protect the environment and enhance local communities.	Eligible projects include a range of parks, open space, historic preservation and waterfront revitalization activities.	Multiple state agencies administer funding programs through the EPF, including DOS, DEC and OPRHP.	Funding is through the State's Consolidated Funding Application (CFA) process. Specific guidelines provided in association with each grant cycle.
Green Innovation Grant Program (GIGP)	Provides grants on a competitive basis to projects that improve water quality and implement green infrastructure in New York State.	A range of green infrastructure-focused installation projects, including the installation of permeable pavements, bioretention and stormwater street trees.	Funded and overseen by the NYS Environmental Facilities Corporation (EFC).	Typically funded through the State's CFA process and can be used to cover up to 75% - 90% of total project costs.
Market New York	Promotes efforts that strengthen tourism in New York State, with an emphasis on projects that "create family memories through activities including but not limited to outdoor recreation, historic sites and museums, food and drink, festivals and the performing arts."	Eligible costs include acquisition or leasing of land, buildings, machinery and/or equipment; pre-development costs; remediation costs; accessibility services; purchase of equipment and/or event amenities; and new construction, renovation or leasehold improvements.	Funding is offered and administered through Empire State Development (ESD).	Funding is through the State's CFA process. Specific guidelines are provided with each grant cycle.